

## ABSTRACT

An object of the invention is to provide a spindle apparatus which facilitates assembling and removing operations at the time  
5 of maintenance and which is low cost.

In the invention, the diameter becomes smaller in the order of an inner peripheral diameter of an outer cylinder (3), an inside diameter of a stator (4), and an outside diameter of a bearing sleeve (11); a sub-assembly (2) made up of a front housing  
10 (8), a rotating shaft (6), and the bearing sleeve (11) is withdrawable from the outer cylinder (3); and the diameter of a rotating part in an arbitrary section located rearwardly of the bearing sleeve (11) is made smaller than a minimum diameter of a non-rotating part between a rear end of the bearing sleeve  
15 (11) and the section.